

550,521

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
7 October 2004 (07.10.2004)

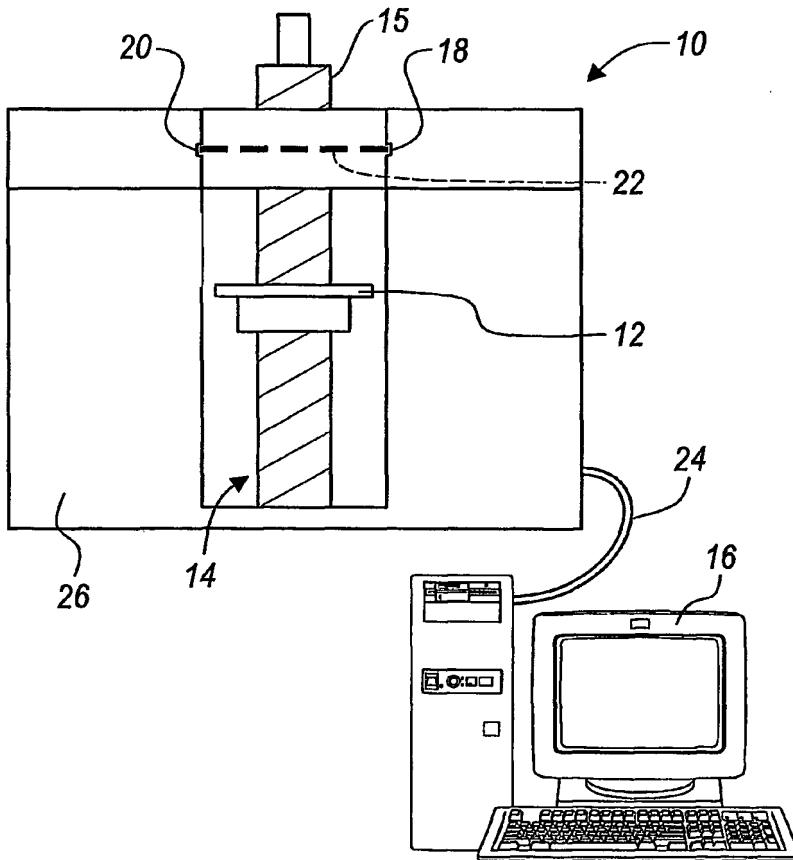
PCT

(10) International Publication Number  
**WO 2004/086573 A2**

- (51) International Patent Classification<sup>7</sup>: H01S
- (21) International Application Number: PCT/US2004/009123
- (22) International Filing Date: 24 March 2004 (24.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/457,140 24 March 2003 (24.03.2003) US
- (71) Applicant (for all designated States except US): PLASTIC TECHNOLOGIES, INC. [US/US]; a corporation of the State of Ohio, 1440 Timberwolf Drive, Holland, OH 43528-0964 (US).
- (72) Inventors; and  
(75) Inventors/Applicants (for US only): SEMERSKY,
- Frank, E. [US/US]; 7944 Hidden Harbour Drive East, Holand, OH 43528 (US). WITHAM, Daniel, L. [US/US]; 6317 Glenhurst Drive, Apt. #5, Maumee, OH 43537 (US). KOSKIE, Stephen, K. [US/US]; 6320 Brixton Road, Apt. #7, Maumee, OH 43537 (US).
- (74) Agent: FRASER, Donald, R.; MacMillan, Sobanski & Todd, LLC, One Maritime Plaza, Fourth Floor, 720 Water Street, Toledo, OH 43604-1853 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: LASER SYSTEM FOR MEASUREMENTS OF THE PROFILE OF OBJECTS



(57) Abstract: A system for measuring a profile of an object comprising a source creating a beam of electromagnetic energy. An electromagnetic beam receiver spaced from the source for processing an output signal proportional to the girth of the object being measured. A platform for providing rotational and vertical movement of the object being measured causing the object to obstruct a portion of the electromagnetic beam generated by the source. A processor for processing the output signal from the electromagnetic beam receiver to form a composite profile of the object measured.

WO 2004/086573 A2



- (84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*